

Amendments to the Drawings

A formal drawing is being submitted concurrently herewith on a New Sheet to add Figure 9 to the drawings. No new matter has been added by this amendment.

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 21-35 are pending in the application, with claim 21 being the sole independent claim. Claims 1-20 were previously canceled without prejudice to or disclaimer of the subject matter therein. Claims 36-40 are presently sought to be canceled without prejudice to or disclaimer of the subject matter therein. Claims 21-27, 29, and 33-35 are sought to be amended. Applicants reserve the right to prosecute similar or broader claims, with respect to the canceled and amended claims, in the future.

New Figure 9 is sought to be added, which is supported by the originally filed claims, figures, and specification.

The originally filed translation of the specification is sought to be amended at pages 2 and 6 to include text related to new Figure 9, which text is supported by the originally filed claims, figures, and specification.

These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objections to the Drawings

The drawings were objected to under 37 C.F.R. § 1.83(a) as allegedly failing to show every feature of the embodiment specified in the claims. The English translation of the as-filed application disclosed the component parts of a phase estimation system including a

biological system and a computing device in the abstract and at pages 2-3 and in claims 1, 6, and 7, but did not include an illustration of the phase estimation system. Accordingly, Applicants have added Figure 9 as an exemplary system drawing and related text have been inserted into originally filed translation of the specification at pages 2 and 6. The subject matter being added through Figure 9 and the related amendment to the Specification is fully supported in the original filed application and the originally filed English translation thereof, for example at pages 2-3 of the translation and in claims 1, 6, and 7 of the translation. The specification amendments and new Figure 9 contain no new matter. M.P.E.P. § 2163.07(b).

Applicants respectfully request that the Examiner enter the new figure and related specification amendments and withdraw the present objection.

Rejections under 35 U.S.C. § 112

35 U.S.C. §112, First Paragraph

The Examiner rejected claims 21-40 under 35 U.S.C. § 112, first paragraph, on the basis that “[t]he claim(s) contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.” The Examiner alleged “[t]he specification fails to describe any system, let alone one having an input device, processing device, and output devices, and each of the devices having such details as claimed.” Applicants respectfully traverse.

Without acquiescing to the propriety of the rejection, claims 36-40 have been canceled rendering the rejection thereto moot.

Although Applicants disagree with this rejection, claim 21 has been amended such that the phrases an input device, a processing device, and an output device are no longer recited. Accordingly, Applicants believe that the rejection has been rendered moot.

However, in an effort to expedite prosecution, Applicants submit that the instant and originally filed specification clearly supports and describes a system, as recited in claim 21. Thus, those of skill in the art could deduce from the specification that the inventor was describing (*i.e.*, had possession of the invention) at least one embodiment of the invention where the system comprised a biological system and a computing device. For example, pages 2-3 of the originally filed translation of the originally filed application clearly support the claims, *e.g.*, as shown in paragraphs [0004], [0005], and [0018] of the June 8, 2006, U.S. Published Application No. 2006/0122781 (emphasis added):

[0004] It is the ***task of the invention*** to provide a method and an arrangement with which it is possible to detect and to measure the causal phase response in periodic bio-signals with better reliability and greater speed, and with ***simultaneous reduction in computing power***, than when using conventional methods.

[0005] This task is solved by the invention in that periodic bio-signals are determined corresponding to their physical and physiological source, in that a ***status observer*** is ***set up in parallel with*** the ***biological system*** under analysis, and in that a Kalman filter is used to evaluate the output values of the biological system and of the observer, and to determine the phase.

[0018] A ***biological system*** that ***produces*** a periodic ***bio-signal*** or responds to a periodic input signal is shown in FIG. 1 as a status model of a “real system.” The following status equations (1) and (2) describe this system (emboldened capital letters stand for matrices, and small letters stand for vectors)[.]

Also, for example, the instant specification now teaches the following:

FIG. 9 is a system. System 900 comprises ***a biological system*** 910 and ***a computing device*** 930. Biological system 910 can ***produce a bio-signal*** 920. In one example, bio-signal 920 is ***used by a status observer*** (shown in parallel with the biological system in FIG. 2) ***to estimate a phase of the biological system*** 910, as

discussed throughout the specification. In one example, using a parallel status observer to minimize the error between the actual phase of the biological system 910 and the estimated phase of the biological system 910 can provide better reliability, greater speed, and a simultaneous reduction in computing power. In one example, a reduction in computing power can be achieved using ***computing device 930 to implement the function of the status observer.*** Computing device 930 can provide ***an output 940*** of the estimated phase for the biological system.

(emphasis added)

The subject matter now found in Fig. 9 and the related text above, which were added for clarity, was previously disclosed in the originally filed specification, claims, and figures, *e.g.*, as discussed above.

Therefore, one having ordinary skill in the art would clearly understand that the inventor possessed the claimed embodiment of the invention as now claimed, and that the originally filed and amended specification supports the claim language.

Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw the rejection of claims 21-35 and find them allowable.

35 U.S.C. §112, Second Paragraph

Claims 36-38 were rejected under 35 U.S.C. § 112, second paragraph, as allegedly being indefinite. Applicants respectfully traverse this rejection.

Without acquiescing to the propriety of the rejection, claims 36-38 have been canceled rendering the rejections thereto moot.

Examiner's Alleged Relevant Pertinent Art

Applicants acknowledge that Examiner's discussion of the alleged most relevant reference, U.S. Published Patent Application 2002/0045433 to Vihriala ("Vihriala"), on pages

6 and 7 of the Office Action. Applicants submit that Vihriala fails to disclose each and every element of the pending claims, and thus the pending claims should be found allowable.

Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

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